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AND USEFUL

OBSERVATIONS

CONCERNING

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1307

Sea-Water

MADE

FRESH,

According to the

Patentees Invention:

In a Diſcourſe humbly Dedicated to His Majeſty, the KING of *GREAT BRITAIN, &c.*

K

By *Nehemiah Grew*, M.D. Fellow of the *Colledge of Phyſicians*, and of the *Royal-Society.*

The Eighth Edition, *Auguſt* the 12*th.*

LONDON,
Printed by *John Hareſinch* in *Mountague-Court* in *Little Britain.* 1684.

AND USEFUL

OBSERVATIONS

CONCERNING

Gun-Dilatation

MADE

PRESS

According to the

Patentees Invention:

In a Discourse hereby Dedicated to His Majesty, the KING of GREAT BRITAIN, &c.

By Nehemiah Grew, M.D. Fellow of the College of Physicians, and of the Royal Society.

The Eighth Edition, Augmented.

LONDON:

Printed by [illegible]

TO THE KING'S Moſt Excellent Majeſty.

May it pleaſe your Majeſty,

THE making *Sea-water* Freſh, hath of late been much diſcours'd of, and is of great Conſequence, not only with reſpect to *Merchant-Ships*, but alſo, as I conceive, to your *Majeſties Navy* and *Garriſons*, and to *Sea Port Towns* in all Parts of the World, where good Water is wanting.

All that is propet to be ſaid upon the matter, will lye in making good theſe three *Aſſertions*.

I. *That* Sea-water *may eaſily, ſafely, commodiouſly, in ſufficient Quantities, be made freſh for all common Uſes at* Sea.

II. *That ſo done, it is as wholſom to be drunk and us'd about* Dyet, *as any other* Water *now in Uſe at* Sea.

III. *That being ſo, the* advantages *are ſuch as will much more then counterpail the* charge *and* trouble *about it.*

For the Truth of the firſt, we have the Reputation of the Gentlemen who have your Majeſties *Patent* for it, and their *Intereſt* alſo to aſſure Us. By an Inſtrument ſcarce a Yard over, which may ſtand under the Deck of any Ship, or very well in the Cook-room, and all Smoak and Fire avoided; they can make about ninety Gallons in twenty four Hours; Which at the largeſt Allowance, of three Quarts to a Man, being kept at conſtant working, will ſerve about an hundred and twenty Men, although two Quarts a day, or three Pints, in time of Scarcity, is counted a good Allowance for one man.

We are likewiſe aſſured, that it may be done with eaſe and ordinary attendance: for although the *Sea* be *Salter* in ſome places than in others, yet the Operation is the ſame; neither is there any difference betwixt that which comes firſt and laſt. And whatever is to be put into the *Engine* with the *water*, may as eaſily be done, as *Salt* or *Oat-meal* into Pottage: So that one Man may ſerve both to make the *Drink*, and for other uſes of the *Ship.*

By Mr. *Boyle* we are alſo aſſured, *That* Sea-Water *thus made freſh, is as wholſome to be Drunk as any water about the Town, in its beſt Condition.* And by an Ingenious *Phyſician* of the Colledge,

a proper comparison hath been made betwixt *This* and the best *Water*. And so many of the Colledge as were desired, have not doubted to give it under their Hands, *That they were satisfied of the wholsomness of this* Water.

Notwithstanding which, to give the World a little more express Proof of the matter, I shall, with Your Majesties leave, undertake the same; which I think I may the more properly do, because I have no share either in the Profit of it, or in the Credit of the Experiment.

Now, all the Signs, which either *Physicians*, or common Experience, have given of the best *Water*, are these; *viz. Clearness, Thinness, Sweetness, Softness, Lightness, Durableness*, and *Pureness* or *Simplicity*; with all which good Qualities, if this *Water* stands in the first rank, I suppose no rational Man will further dispute whether it be good, or no.

The *Clearness* hereof, although it may be pretty well observed in a good *Flint-Glass*; yet I consider'd, that as there are degrees of Heat and Cold, of which our Bodies being unsensible, can only be judg'd of by a *Weather-Glass*; so there may be degrees of Perspicuity, which the Eye, unless assisted, will not easily reach; as may appear by this easie Expetiment.

If a few drops of *Claret* be put into *fresh Sea-water*, (such as is made by the *Patentees*, and with which I made This and all the following

Experiments) they will give it a kind of *light Hyacinthine Red*. But if the ſame quantity of *Claret* be drop'd into as much *River-water*, and that after the *Water* hath ſtood in a *Ciſtern* to ſettle a conſiderable time, it will look muddy, as if a drop of Ink had been put into it; the *Claret* diſcovering thoſe *Opacous* Parts which before were not eaſily diſcern'd.

The ſame is likewiſe an Argument of the *Thinneſs* of this *Water*. As is alſo the Preparation of it by *Fire*; for the very *Boyling* of *Water*, is one way recommended by *Hyppocrates*, and commonly uſed for the *Attenuating* of it; that is, the *Separation* of any *Groſs* and *Heterogeneous* Parts, which ſwim therein, and upon *Boyling* uſe to *ſubſide*: and the greateſt part of *Rain-water*, which is as *thin* as any, is *Diſtill'd* from the *Sea*.

Its *Sweetneſs* recommends it, both as to the *Smell* and *Taſte*; for the beſt *water* hath no *Scent*, neither hath this any. And ſo for the *Taſte*; 'tis true, a little *Alkaline Salt*, in the Opinion of ſome *Water-Drinkers*, gives a kind of *ſweetneſs* or *ſavourineſs* to *water*, as *Salt* to their *Pottage*; for which cauſe, I have known them to prefer *Pump-water* before any other ſort. But the beſt *Water*, and that which is generally, both by *Water-Drinkers*, and others, moſt eſteem'd, is no otherwiſe *ſweet*, than in being very *ſoft* upon the *Tongue*, and rather *inſipid*; and ſuch is this *Water*.

Neither

Neither doth it excell in *ſweetneſs* or *ſoftneſs* to the *Taſte* alone, but alſo to the *Touch*: of which quality *Dyers* and *Laundreſſes* (who are very Critical at their *Fingers-Ends*) make the beſt Judgment, in mixing their *Water* with *Soap*. But a different degree of *Heat*, or proportion of *Soap*, will alter the caſe: And therefore, to make the *Tryal* exact, let half a Pint of *Pump-water* be warmed to a convenient degree, and half a *drachm* of *common Soap* diſſolv'd therein: in doing of which, it will be very difficult to raiſe a good Lather: the Water underneath it will look muddy and unequal, as if it were *curdled*, and when the Lather falls, it lies on the *water*, or any thing it is put upon, like *Greaſe*, yet feels *harſh*.

The ſame quantity of *Soap* and *River-water*, and the *water* heated to the ſame degree, make a high Lather, and that in a ſhort time, and the *water* alſo under it is equal and *clear*.

In all which Reſpects, this *Freſh-Sea-water* doth not only equal that of the *New-River*, or *Thames*, but excells it: For beſides, that it is rather *clearer* when the *Soap* is diſſolv'd: it alſo makes as ſtrong a Lather, in a ſhorter time, and with leſs *Soap*: inſomuch, that the woman I caus'd to make the Tryals, and compare them, not knowing whence I had any of the *waters*, gheſs'd that above a pound and a quarter of *Soap* would not go ſo far with *Thames-water*, as a pound would do with this *Freſh-ſea-water*.

Another Circumſtance is, That if the *water* be extraordinary good, it will make a very good Lather without being heated, which this *Water* will alſo do.

This ſame *Water* is alſo as light as any common *water* whatſoever; as may beſt be prov'd by a *Water-poiſe*, which the *Italians* commonly uſe when they would try the *lightneſs*, and therein the *goodneſs* of their *Water*. For this purpoſe, I mark'd the Neck of one with ſeveral Degrees equally diſtant, immerſed it in the ſeven following *Waters*, wherein it ſunk leſs or more, according to the *gravity* or *lightneſs* thereof.

In the *Pump-water* in *Chancery-lane*, (a *heavy water*) it hardly dips to the firſt, or lowermoſt Degree.

In the *Pump-water* in *Chriſt's Hoſpital*, juſt to the lowermoſt.

In the *Conduit-water* in *Cheapſide*, to the ſecond, or near it.

In *Thames-water*, *New-River-water*, *Water* diſtill'd from *Spring-water*, and in *Freſh-Sea-water*, to the third, or thereabout. So that it is as *light* as common *water* diſtill'd.

Neither is there any Water more durable or uncorruptible: for, all Corruption in Water ſheweth it ſelf one of theſe four ways; either by ſome ill *Taſte* or *Smell*, or by becoming *muddy*, or *turbid*, or by gathering ſome *Skin* or *Bubbles* at the Top, or by letting ſome *Sediment* fall to

the bottom; none of all which happeneth to this *Water*, tho ſome of it hath been kept, both in and out of the *Sun*, for nine months; and without all doubt, would continue ſo much longer.

The laſt mention'd quality of the beſt *water* was, its *Purity*; that is, *Simpleneſs*, or *Homogeneity* of *Parts*.

I deny not, but rather contend, That there is a certain *aereal Nitre* incorporated with all Water; of a different nature from *Nitre* commonly ſo call'd, and ſuch as by no means yet known, can be viſibly ſeparated from the *water*. From hence chiefly it is, I conceive, that Water obtains its *cooling* quality; and that when it *freezes*, it is not becauſe it is then only impregnated with this *Nitre*, but becauſe then the *Air* being ſurcharg'd, throws off a greater quantity into it: As when *water* is ſweeten'd or ſeaſon'd with a little Sugar, it doth not follow that there is none in it, becauſe not enough to make it *Candy*. So there is of this inviſible *Nitre* in Water, always enough to ſeaſon it, tho not to make it *Candy*, or turn to *Ice*.

Now allowing this *Nitre*, that *water* which in all other reſpects is the moſt *ſimple*, is alſo juſtly to be eſteem'd moſt wholſom, and always hath been ſo. For, as the Humours of the *Eye*, which is the Inſtrument, and the *Air* the *Medium*, by which we diſcern all *Colours*, ought to be themſelves perfectly *tranſparent* and *colourleſs*; ſo *water*, which is only a *Vehicle*

should be it self the most simple, and freest from all manner of Qualities, besides those proper to it as *Water*. For if it be desired at any time to be *embued* with any other *Quality*, it is with respect to some *medicinal use*, and not *common Diet*.

Now this *Purity* or *Homogeneity* of *Parts*, doth eminently belong to this *Fresh-sea-water*, as I shall make it appear several ways: and therewithall, shew the reason of its other *good qualities*; especially of its *Softness*, *Lightness*, and *incorruptibility*.

And first, the reason of its *Softness*, is its *Purity*; or its being undefiled with any kind of *corrosive Salt*, whether *Alcaline*, *Marine*, or *Acid*.

For upon *evaporating* of any hard *Pump-water*, most *Spring-waters*, and *River-waters*, in a *Glass vessel*, or one very well *glased*; it is evident, that the former contains a considerable quantity of *Salt*: a *Gallon* from the *Pump* in *Chancery-lane*, which is the *saltest water* in this *City*, will yield near three *Drachms*: not of an *Alluminous salt*, as is commonly thought, but an *Alkaline*, with the *Taste* and other Properties of a *Lixivial salt*.

That *Spring-waters*, though they yield more or less of the same *salt*; yet in a far less quantity, and that *River-waters* yield the least of all: Of which three sorts of *Waters*, the first are

th-

the *hardest*, the last the *softest* of any in common use; yet excelled by *Fresh-sea-water*, as appears by one of the fore-going *Experiments*.

Neither is there any *Marine-salt* herein; for whereas half a Pint of this *Fresh sea-water*, or of *River-water*, and half a *Drachm* of common *Soap*, will of themselves make a very good *Lather*; if but twelve or thirteen *grains* of common *salt* be added to the *water* before the *soap* be dissolv'd therein, it will *curdle*, and the *Lather* fall like *Grease* upon it, as if it were some *harsh Pump-water*.

Nor yet any *Acid*; for, if you put but seven or eight drops of *Oyl of Vitriol* into half a Pint of *River-water*, though you increase the former quantity of *Soap*, yet it will never make any *Lather* at all.

Or to come yet nearer; should any suspect that some kind of *Spirit of Salt* may come off with the *water*; if but seven or eight drops of *Spirit of Salt* be put to half a pint of *River-water*, it will, in the same manner, hinder it from making any *Lather*. Nay, if but two or three drops be put into it, they will have the same effect.

So the reason why *Fresh-sea-water*, as prepar'd by the *Patentees*, is so extream *soft*, is its *purity*, or freedom from all manner of *Salts*, save only that *Aereal Nitre* which is common to all *water*, and chiefly contributes to its *cooling* quality.

Or if any one ſhould be ſo pertinacious, as to ſay, that yet there may be one *Grain*, or part of a *Grain* of *Salt*, or one drop, or part of a drop of *Spirit* of *Salt*; ſhould thus much be granted, then in the ſame quantity of *Thames-water* there is as much, or more; this being a *ſofter Water* than even *Thames-water* it ſelf.

The *purity* of this *Water* is alſo argu'd from its *lightneſs*. The perfect Diſſolution of any *Salt* or *Earth* in *Water*, in never ſo ſmall a quantity, adding weight to it. So, for Example, if half a *drachm* of common *Salt* be diſſolv'd in a Pint of *River-water*, the *Water-poiſe* will dip no lower into it than into any *harſh Pump-water*. So that in a Pint of ſuch Water, there is about half a *drachm* of *Salt* and *Limy-Earth*, more than in *River-water*; for, although ſuch *Water* be as clear or tranſparent as any *diſtill'd Water*, yet in the Evaporation, ſome portion of *Earth* is always precipitated together with the *ſalt*.

So likewiſe, if half a *drachm* of *Oyl of Vitriol* or *Spirit of Salt*, be put to a Pint of *River-water*, the *Water-poiſe* will dip therein but to the ſame Degree as if the ſame quantity of *Salt* had been put into it.

Since therefore the *gravity* or *lightneſs* of *water* dependeth upon the Diſſolution of more or fewer *Salt*, *Acid*, or *Earthy* Parts therein; and that *Freſh-ſea-water* is rather *lighter* than *River-water*, and as *light* as any common *Water*

diſtill'd

diſtill'd, as hath before been prov'd; the one is as pure and free from all kind of *Salt*, *Acid* or *Earthly* Parts, as the other.

From whence, and from its being void of any *taſte* or *ſmell*, 'tis alſo eaſie to conclude, how it is ſo *permanent* and *incorruptible*; for in this Caſe, there can be no *Corruption* without *Fermentation*, nor any *Fermentation* where there is no *Sulphur*, nor any other *fermenting Principles* to be any way diſcover'd: So that as the *Simplicity* of this water is the reaſon of its Duration, ſo this, with the Premiſes, an evident Proof of its *pureneſs* and *ſimplicity*; which ſtill may be further confirm'd by the following *Experiments*.

Let about half an *Ounce* of *Syrup of Violets* be diſſolv'd in half a Pint of ſome *harſh-Pump-water*; in a ſhort time the *water* turns the *Syrup* to a *muddy green Colour*: This I have known to happen to ſome *Apothecaries*, as much to their *loſs*, as their *wonder*, from whence it ſhould proceed. But the Reaſon was, though they took ſufficient Care in picking their *Violets*, yet not in the choice of their *water*.

Put a few Drops of *Oyl of Vitriol*, or *Spirit of Salt*, to the ſame quantity of *River-water*, and then let the ſame proportion of *Syrup of Violets* be diſſolv'd therein, and it preſently turns *Purple*.

But if the *Syrup* be diſſolv'd in *River-water* alone, it turnes neither *green*, nor *purple*, but holds

holds its *blew Colour* perfect; and so it doth the Lake if it be dissolv'd in *Fresh-sea-water*.

Observing this, I proceeded to make the like *Experiment* with *Claret-wine*, which I mix'd with several sorts of *Water* in some good quantity, as I did the *Syrup*; but without any discernable difference between them.

But, considering that the *colour of Claret* being very full and strong, might require a much greater proportion of Water to over-rule it; I put three Spoonfuls of *Pump-water* into a *Flint Glass*, and drop'd into it not above seven or eight Drops of *Claret*: which being well mix'd, I perceiv'd, that in a little time after, the *Colour*, instead of being changed, was wholly vanish'd, and the Water become as clear as before the *Claret* was drop'd into it. The *Alkaline* Parts in this Water destroying the *Acid*, and therewith the colour of the *Claret*.

The same number of *Drops*, being mix'd with the same quantity of *Lambs-conduit-water*, in a *Glass* of the like Metal, bigness, and shape, the *colour*, in a short time, did almost, but not wholly, vanish.

Mix'd in like manner with *River-water*, it gives a few *Permanent Rays* of *Red*, but *muddy*, as was before observ'd, and is here again to the present purpose.

But being mix'd in the same Proportion, and Glass, with *River-water* distill'd, gives it,

a *light*, *clear*, and *permanent Hyacynthine Red*.

And the ſame curious and durable *Red* it likewiſe imparts to *Freſh-ſea-water*.

From whence, and all that hath been ſaid before, it appears, To have the *clearneſs* and *durableneſs* of *Spring-water*: the *lightneſs* or *ſoftneſs* of *Rain*, or *River-water*, the *ſweetneſs* and *ſimplicity* of that which is diſtill'd; and in a word, all the good Qualities of the beſt *Water*, without any bad one: Which may ſerve to ſatisfie any reaſonable Man, not only to make Tryal of it, but alſo to prefer it before any other now in uſe at Sea.

Yet becauſe Men will hardly be brought to leave a known Road, though a bad one, for a better unknown, till they ſee ſome Body go before them; therefore, to diſcharge all manner of Scruple, I muſt not omit to add, that there are ſeveral Perſons of Quality, and others, who have Drunk often and liberally of this *water*; and though not much uſed to drink *water*, yet have receiv'd no Prejudice thereby. And amongſt them, ſome *water-Drinkers*; whom I take to be the moſt proper Judges in the Caſe, and who give the Character of it, *To be very wholſom*; and that it will quench the *Thirſt* as well as any other ordinary *water*.

The Feaziblenes of making ſufficient quantities of *Sea-water freſh*, and the Wholſomneſs thereof, being granted; The Advantages which

will

will arise from the use of it at Sea, are very ob-
vious; with respect both to *Profit* and *Health*.

And first, as to *Profit*. Suppose the Voyage to be made to *Surrat*; for which, one Butt of *water*, for *Drink* alone, is the ordinary Allowance for one Man. The Quantity being always laid in, not only according to the length of this or any other Voyage, but also for a Reserve in case of a Calm; which, if it happen not, they have commonly more than enough. So that if we suppose a hundred men to be in the Ship, they will require so many Butts for *Drink*. Whereas, if there be no *water* laid in, but only an *Instrument* to make it, as there is need, the *Coals* to work it a day and half, that is, to make about a Butt (126 *Gallons*) of *fresh-water*, may be allowed to be something more than a *Bushel*, which will be the most; or for a hundred *Butts*, to be about a hundred and ten *Bushels*. So that one *Butt* containing fifteen *Bushels*, a hundred and five *Bushels* will lye in the room of seven *Butts*. By which means, about thirteen parts of fourteen now taken up for *Water*, will be gain'd for *Stowage*; saving that there must be some few *Cask* for receiving the *Water* as it is wrought off from the *Engine*. And the like Computation, or near it, may be made with respect to any other *Fewel*, which also may be used as well as *Coal*. Besides which, the saving the Charge of the *Butts* will be very considerable;

the

the Price of a *Butt* being twenty Shillings, being bound with *Iron*.

Beſides which, there are other Particulars, relating to *Profit*, and the preventing of *Damages* both at *Sea*, and in *Sea-Port Towns*; upon which, the Honorable Mr. *Fitz-Gerald*, in his late Book, doth very pertinently inſiſt.

I ſhall therefore conclude with the ſecond great Advantage which will hence ariſe; and that is, in point of *Health*. 'Tis true, that *Thames-water*, when firſt laid in, hath the Repute of no *unwholſom Drink*. And generally, though not always, good care is taken in laying it in, both at the beſt time, which is at half Ebb; and in caſe of great *Tides*, above the *Bridge*, ſometimes as high as *Chelſey*. And tho it *ferments* and *ſtinks* in the *Voyage*, yet grows *ſweet* again: and, as they ſay, doth not *ſtink* all at one time.

Notwithſtanding which, there are very few who would chooſe a ſuſpicious *Water*, that may have *Spring-water*, if they will, or that which is as good; or better, if it be true, which ſome ſay, That in a large *Voyage*, even ſome *Spring-waters* will ferment a little. For the mixing with Wine, or any other uſe, it would be no ſmall Pleaſure to the Captain of a Ship, to be ſure of that which is the beſt. And it is as a Rule among the *Sea-men*, That good *Water* ſhall be valued, and go as far as *Brandy*, when they club together for a Bowl of *Punch*.

In point of *Health*; Peradventure, while the *Thames-water* is in the height of its Ferment, even the *Seamen* may forbear to drink it. Yet we have no Reason but to believe, when that is over, before the Water be throughly recover'd, it often goes down well enough with them; who living in so thick and moist an *Air*, and having their *Mouths* always *fir'd with salt Meats*, cannot be very Critical either in their *Taste* or *Smell*. So that though the *Scent* and *Taste* of the Water, with respect to the Seamen, is not much to be regarded, yet their constant *drinking* of a *fermenting Liquor*, tho but for some days, may be of ill consequence, and for that time, the more encline them to *Calentures* and other Fevers, especially near the *Line*, where they are more subject to them, and the *Water* to its highest *Ferment*. For the maintaining whereof, there is a considerable stock of *Matter* in the *Water*, how simple soever it may seem to be. Insomuch, that after any long Voyage, it will *burn*, or give a *flash*. Whereas *Fresh-sea-water*, being free from all manner of *inflammatory* and *fermenting Principles*, it can no way conduce to the production of the fore-mention'd *Diseases*, but will rather prevent them.

But supposing *Thames-water* were always *wholsom*; yet the *Water*, in many other places, where Ships are often forc'd to take it in, is found

to

to be very bad, and to make the Men *ſick*. An *Engliſh* Ship, the *Faulkon*, in a late Voyage to *Surrat*, being upon the Coaſt of *Malabar*, was there forced to take in Water; of which, the Men who *drank*, were taken with *Fluxes* and *Fevers* of that ill Nature, that of about eighty five in the Ship, thirteen, or near one ſixth part, died in a ſhort time, and ſome languiſhed long under dangerous Diſtempers.

And ſometimes *Ships* are brought to that want of *water*, as neither to have good nor bad; as in a long Calm: Which though it doth not often continue ſo long as to *Kill* the Men; yet, beſides the Anguiſh of *Thirſt*, it ſometimes makes way for divers *Diſeaſes*, as a *Surfeit*, *Dyſenteries*, or *Cholick*, upon the firſt Immoderate Drinking.

Sometimes alſo, it is an occaſion of great Danger both to *Men* and *Ship*. Not long ſince, a Ship went to Sea, betwixt *Cheſter* and *Dublin*, pretty well provided with Water. But meeting with a calm of ſome Days, the *Paſſengers* were forc'd to row ſeveral Leagues to the *Welſh* Shore; in which time, if a Storm had happened, the *Paſſengers* had been loſt in the Boat, and the *Ship*, in all likelihood, had been loſt for want of the Hands that were made uſe of in the Boat.

Nay, it hath been known, that a whole Ship of Men have periſh'd for want of *Water*. About five years ſince one came in laden with *Tobacco*

from *Virginia*, in which all the *Paſſengers* were found dead; having declar'd in a Writing which they had nail'd upon the *Maſt*, *That they had periſh'd for want of* Water. All which Miſchiefs will be avoided by the conſtant ſupply of *Freſh-ſea-water*.

And not only in point of *Drink*, but alſo in *Meat*; moſt of which now eaten is extream *ſalt*. For which, all the Care they have at *Sea*, is to ſoak it before it is boil'd; not in *freſh-water*, but in *ſalt*. For if they ſhould uſe *freſh-water*, they muſt lay in near double the quantity, the *Meat* being commonly ſhifted once in four hours for three or four times. They ſay, indeed, that the ſoaking of it in *Salt-wäter*, fetcheth out the *Salt* better than in *freſh*. And for the firſt or ſecond *ſoaking*, I believe it may; yet alſo, that a *ſoak* or two in *freſh-water* afterwards, will do beſt: Which, to keep the *Meat* from *ſtinking*, as at that time it is apt to do, may be done ſo much the ſooner.

But many times the Sea-men are put to ſuch ſtraits, as not only to *ſoak*, but alſo to boil their *Meat* in *ſalt-water*. Which, inſtead of taking any *ſalt* out of it, doth rather add to it, becauſe the *Boiling* of the *Sea-water* makes it to become *ſalter*.

Now from ſuch *Dyet* as this, what can be expected, but beſides the higheſt *Scurveys*, a Foundation alſo for *Dropſies* and divers other *Diſeaſes*;

Diſeaſes; of which the Patients either die quickly, or are hereby ſo far weakned, as with reſpect to the Publick, to be worſe than dead. For a Man that is dead, is but one Man loſt; but one that cannot work, is not only loſt himſelf, but alſo ſpends upon the Labours of another. All which Miſchiefs will be very much prevented, by having of *freſh-water* enough for all Uſes at hand.

And this, not only by emendation of bad Meat, but moreover in altering the very way of Diet: for where there is freſh Water, good Victuals may be made at any time without Fleſh. This, with Biſquet, Wheat, or Rice, and a little Sugar, or Butter, will make very good Food.

I have thus comprized all that is neceſſary to be ſaid upon this matter, in as few Words as I could, that I might not ſeem to miſ-ſpend thoſe precious Minutes whereof your Majeſty hath ſo few to ſpare: nor ſhould I have preſum'd to have intrench'd on them at all, had not Your Majeſty already judged this Subject worthy Your Royal Conſideration, for the great Uſefulneſs it may be of to Your *Forts* on *Land*, and Your moving *Caſtles* in the Sea, where alſo You are *Sovereign*; and the Advantage it muſt certainly bring to *Navigation*, that great *Medium* that Unites the far diſtant Parts of your Empire, and makes the whole World in a manner pay

Tribute

Tribute to the Throne of *Great Britain*. Thoſe that ſee the Wonders of God in the *Deep*, when they find Relief in a Neceſſity by which they muſt have periſh'd without this Art; will praiſe Your Majeſty's Goodneſs and Care, not only of your own People, but of all Mankind, and will juſtly account it a Miracle, that you have raiſed a never-failing *Spring* of *Freſh Waters* in the midſt of the *Ocean*.

FINIS.